From the World Wisdom online library:
www.worldwisdom.com/public/library/default.aspx

CHAPTER 15

Spirituality and Science
Convergence or divergence?[1]

Seyyed Hossein Nasr

In a world torn by contention and strife at every level, from the spiritual and intellectual to the physical, those in quest of the creation of peace and harmony have often turned to the task of seeking accord between spirituality and science. The contemporary landscape is in fact filled by such efforts many of which, although based on the best of intentions, only contribute to further chaos in the present-day world. Many such attempts substitute sentimental wishing for reality and ambiguous definitions and positions for the clarity and rigor which alone can disperse the fog of ignorance that blurs the vision of present-day humanity traveling on a road that becomes even more perilous thanks to a large extent to the lack of critical discernment in the relation between a knowledge derived from the senses and its consequences and the wisdom which descends from revelation, intellection or illumination. The "harmony" between science and spirituality, characteristic of much of the so-called New Age mentality in the West and also numerous westernized Orientals who speak without a clear definition of the concepts involved and modes of knowledge and consciousness at play within the boundaries of what is to be harmonized and unified, is itself one of the sources of discord and cacophony in a world in which intellectual discernment, so long a hallmark of all metaphysical traditions especially those of India, is too easily sacrificed for ambiguous and disruptive accords which cannot but lead to discord as long as one mistakes the rope for a snake.

The subject of the relation between religion and science, and for those embarrassed by the use of the term religion, then between spirituality and science, remains for other reasons of paramount importance in a world in which on the one hand a science of nature based upon

[1] The following is the text of an address given in New Delhi, India in July 1995 as part of a celebration on the occasion of the sixtieth anniversary of the birth of His Holiness the Dalai Lama.

power and dominance over nature rather than the contemplation of its ontological and symbolic reality reigns supreme as the only legitimate form of knowledge and is almost deified and certainly absolutized, while its practitioners appear more and more to the masses at large as priests wielding ultimate authority over human life and even determining its meaning. And on the other hand, the demands of the Spirit and the quest for the spiritual still continue unabated for they are woven into the very texture of human existence, and if anything the very threat to human life on earth brought about by the applications of modern science have only increased this yearning of late as seen in the revival of religion throughout the world and the even greater flowering of "home-grown" and exotic forms of so-called spiritualities as well as aberrant mutations of Oriental teachings, in even the most secularized parts of Western society. In the light of this situation it is therefore necessary to ask before delving into the question of convergence or divergence exactly what we mean by science and spirituality in the context of the present discourse.

The definition of science might appear to be simple if one only uses the current understanding of the term in English, and not in fact French or German where the terms *science* and *Wissenschaft* have a more general connotation. In English the term science implies a particular way of knowing the natural world based upon empirical and rational methods and excluding by definition other modes of knowledge based upon other epistemological and ontological premises. Of course, even in English we do use such terms as Chinese, Indian, Islamic or Buddhist science because such a basic term as science, derived from *scientia*, cannot become completely limited to its positivistic, operational, empirical or rationalistic meaning. In the latter case, that is, if we were to think of let us say Chinese or Islamic science, then the relation of such a science to spirituality would be very different from what exists today when one limits the term science to its main current English usage. This difference is due to the fact that the traditional sciences are based on very different cosmological and epistemological principles from modern science. For the purpose of this discussion, however, we shall define science as that body of systematic knowledge of nature, combined with mathematics, which grew out of the Scientific Revolution of the 17th century on the basis of earlier Latin, Islamic and Greek sciences. This limitation is quite unfortunate, especially in a discourse given here in India, and because so little attention has been paid by Eastern as well as Western scholars to the relation between spirituality and the traditional sciences of

nature. And yet the crisis is not in that domain but is to be found in the confrontation between the modern Western scientific world view, now spread over much of the globe, and the spirituality which has flowered over the millennia within the gardens of various religions of the world.

As for the definition of spirituality, it is even more problematic because of the very ambiguous manner in which it has been used during the past few decades. The origin of the usage of this term in European languages is fairly recent, that is, within the past century or two, where it was first used in Catholic circles. Only recently has it become widely used, often as substitute for religion and for some in opposition to it. Words used in Oriental languages to denote spirituality usually reflect the etymology of the word as coming from *spiritus* or the Spirit. For example, in Arabic the term *rūhāniyyah* is a prevalent translation, the term coming from *al-rūh* which means precisely *spiritus*, without the meaning of the Arabic term having become in any way ambiguous. In the modern world, however, which is characterized by either the denial of the Spirit as an objective, ontological reality, or its confusion with the psyche, what can spirituality even mean? Most often it implies a vague yearning for meaning and the experience of the noumenal while settling for the psychological instead in forgetfulness of the truth that the Spirit manifests itself according to certain principles and only within the great traditions of celestial origin. And if the Bible asserts that "the spirit bloweth where it listeth," this only points to the exception which proves the rule.

Once traditional criteria of the reality of the Spirit and laws of its manifestation as contained in various traditions such as Hinduism, Buddhism, Christianity and Islam are denied, then anything can be called spiritual and the term spirituality loses both its intellectual dimension and sacred quality. The vast labyrinth of the psychic world becomes confused with the luminous Heaven of the Spirit and the type of so-called spirituality resulting from this confusion can be made to converge with almost anything including science. In this present discussion, therefore, we shall define spirituality as the inner, spiritual dimension of traditional religions dealing with the noumenal and the formless that can be experienced directly and is beyond mental categories but is not anti-intellectual. On the contrary if intellect is understood in its original sense as *intellectus* or the *buddhi* and not simply reason, spirituality and intellectuality are inseparable from each other.

The task of studying whether there is convergence or divergence between science and spirituality is in fact worthy of pursuit only if spirituality is understood in this traditional sense and not in an ambiguous manner which can embrace almost anything including the psychic and even the demonic. Be that as it may, the discussion which follows confines itself to the traditional understanding of spirituality, one which is nevertheless vast beyond our imagination for it includes a Shankara as well as an Eckhart, a Rūmī as well as a Hōnen, a Milarepa as well as a Chuang-Tzu, not to speak of the great masters of spirituality of other traditions such as Judaism, Zoroastrianism, Confucianism and Shamanism.

Defined in this manner, one can at first ask what are the points of divergence between spirituality and science. Obviously there is first of all the question of the understanding of what constitutes reality. In traditional spirituality, reality is at once transcendent and immanent, beyond and here and now but in all cases above every categorization and conceptualization of the mind. It is beyond the psycho-physical realm and yet encompasses this domain. One cannot comprehend it in the sense of its being encompassed because nothing can encompass that which is infinite. Yet it can be known by the Intellect which is a divine noetic faculty at the center of our being. Ultimate reality is absolute and infinite, the supreme Good and the source of all good. It is Beyond-Being as well as constituting Being which is the origin of the cosmic hierarchy and levels of universal existence.

In contrast, for modern science, reality, to the extent one still speaks of such a category, is that which can be empirically verified. Everything that is beyond the empirically verifiable cannot be treated or known "scientifically"; nor strictly speaking can it even be of scientific significance. To all extents and purposes it is non-existent. To use the language of Hinduism, the Real is *Ātman* while all modern science is a science of *māyā* or more exactly of its lower reaches, or in Buddhist terms of *samsāric* existence even if extended to the galaxies. The Real is known through the twin sources of revelation and intellection with the aid of the *buddhi,* while both of these sources, and along with them metaphysical and cosmological truths, are denied by the world view of modern science, although not necessarily by individual scientists.

Authentic spirituality is always aware of the basic distinction between the Principle and Its manifestations, between *Ātman* and *māyā*, *nirvāna* and *samsāra*, the Divine Essence (*al-Dhat*) and the veils (*hijāb*) which hide and yet reveal the theophanies of the Divine

Names and Qualities from us and to us. The foundation of all traditional metaphysics is in fact the distinction between the Absolute and the relative and knowledge of the relative in the light of the Absolute. By denying the Absolute in the metaphysical sense, modern science cannot but absolutize the relative, mistaking the cosmic "illusion" or *māyā* for reality. Its grave sin is what Buddhism calls the error of false attribution. As a result, the scientific world view denies not only the Absolute in Itself but also the hierarchies and levels of being beyond the psycho-physical, the sensible and the measurable. Many of its exponents then set about to reveal the mysteries of existence through the microscope, telescope, or some computer model, and a world dazzled by the glitter of modern technology and having divinized modern science stands with full anticipation for the revelation of the next "mystery of the universe" which does not usually go beyond adding or subtracting some purely quantitative element to or from the universe seen in a purely quantitative manner.

There is of course a metaphysical significance to those discoveries of modern science which correspond to some aspect of physical reality and are not purely conjecture, for all that is real is real to the extent that it symbolizes a reality beyond itself and everything in the universe is ultimately symbolic except the Absolute Reality Itself. But this truth concerns precisely what lies beyond the confines of modern science and cannot be understood save by a metaphysician whether he be himself a scientist or not.

Before turning away from the question of divergence between spirituality and modern science, it is necessary to emphasize again that authentic spirituality depends ultimately upon a revelation from the Spirit on the basis of immutable principles. Modern science is also based on a set of premises but the latter have not descended from Heaven. Rather, they are the creations of those philosophers who have woven together the elements that constitute the paradigm within which modern science has functioned since the 17th century. Strangely enough it is only during the past few decades that the dependence of modern science upon a particular world view and paradigm of physical reality is becoming accepted at least in some circles while the majority of modern educated people continue to believe that religion or spirituality is based on faith, and that certain assumptions about the nature of reality and science on the contrary are based upon reason and observation. Both in fact base themselves upon faith in a body of knowledge which for religion is considered to be the truth and for science premises and foundational assumptions. The great difference

is that in one case the doctrines descend from the immutable Divine Order and in the other from rational and empirical philosophies of a purely human order whose consequences cannot of necessity transcend the purely human and because of their denial of the supra-human, place man in the danger of falling into the sub-human. It is because of the radically different epistemologies, views of reality and premises involved that science cannot confirm the Divine Origin of the world or its eschatological omega point, the reality of the spiritual worlds above the physical or the immortal nature of the soul of man, to use the terminology of the Abrahamic religions. Nor can it point to what constitutes the goal of human life here below.

Science is based in fact upon the idea that there is only one mode of perception and one level of external reality which that single level of consciousness studies. The world according to it is what we see if only we extend the word "see" to include what is shown by the microscope and the telescope which do not represent a new mode or level of seeing but simply the extension, horizontally, of what the human eye perceives. In contrast authentic spirituality is based upon the basic thesis that not only are there levels of reality but also levels of consciousness which can know those levels of reality. What we perceive of the external world depends upon our mode of consciousness, not in the sense that a geologist looking upon a mountain sees certain geological structures which the non-geologist does not perceive; rather in the sense that other non-physical levels of reality of what taken only physically becomes the mountain can be known if we possess higher levels of consciousness. And again this does not mean that this knowledge is based on some kind of subjectivism but means that when we possess a higher level of consciousness we have the preparation to "see" other dimensions and levels of the reality in question. In any case according to all traditional spiritual doctrines what we see depends upon our mode of consciousness and knowledge and our mode of consciousness in turn depends upon our mode of being. Hence the centrality of spiritual discipline which transforms our mode of being as well as consciousness. Seeing is believing only if we extend the meaning of seeing beyond what the physical eyes perceive.

This great contrast becomes more evident when we consider the fact that to become educated as a modern scientist, it is not necessary to undergo any spiritual training but only to develop certain mental faculties and keenness of observation in total contrast to the case of spirituality when it is practiced seriously and not simply talked about, for authentic spirituality demands the transformation of our whole

being and a change in how we think, perceive, evaluate and act. The result of this basic difference is that there are some scientists who are interested in spirituality and some not at all. Even in the realm of ethics, modern science qua science demonstrates a relation very different from what we find in traditional spirituality. Ethical values are inseparable from the acts and deeds of spiritually realized men and women and spirituality has always been the fountainhead, the inner spring and the life force of ethics in various religions. In contrast modern science as a system of knowledge is ethically neutral and in fact ethical questions are irrelevant to it. On the practical level there are many scientists who are very ethical and then of course there are many who are not, as the history of this century has amply demonstrated. In fact the whole idea of scientists being responsible for the consequences of the applications of their science within the societies in which they function has only recently become acceptable to a notable body of scientists, at a time when these applications threaten both the natural environment and the quality and possibly even continuity of human life on earth.

One could go on at length but the points mentioned should suffice to demonstrate that the facile convergence of science and spirituality championed in so many circles is based more on fervent desire than on reality. Also it is often based on the one hand on the confusion of science with the views of some of its practitioners and on the other on the dilution and distortion of authentic spiritual teachings. Nowhere is this more evident than in the question of evolution understood in its modern biological sense. All traditional doctrines which do deal with cosmogony, some like Taoism and Confucianism remaining silent about the genesis of the cosmos, speak of the descent of the world from the Divine Principle, the celestial archetypes, the Logos, etc. God said, "Let there be light and there was light," the Bible asserts and the Quran states that Allah has said, "Be!" and all things came into existence. There is the primordial sacrifice of Purusa in Hinduism and of Gayomarth in Zoroastrianism to which numerous examples could be added from other traditions. The beings of this world have descended from the Divine, from the world of the Spirit and the reality of all things in the cosmos resides in God, to speak in the language of Abrahamic faiths, or according to Hinduism is contained in the original cosmic egg which far from being material is a spiritual reality containing all the possibilities to be manifested in a particular cosmic cycle.

In evolutionary theory, on the contrary, everything has ascended from below, from the original "soup of molecules" which somehow mysteriously produces a consciousness that can stand outside the process and understand and study it. Nothing in the world is more opposed to the spiritual understanding of the origin of man and other beings than 19th century evolutionary theory which is a philosophy rather than science but which is presented as science because it is the main support for the whole structure of the modern scientific world view without which the whole secularist *Weltanschauung* would collapse. And nowhere is this sentimental attitude, so opposed to metaphysical discernment that has always characterized the intellectual life of the land of India, more evident than in the writings of an array of people, many from the Indian world, who would simply equate the traditional Hindu doctrines of descent and gradation of being with evolution and ascent of the higher from the lower through simple temporal processes of change and transformation.

To this century-old attempt at bringing about the convergence of totally divergent perspectives must now be added a recently written chapter by those who would reduce both science and religion or spirituality to a "story," claiming that each has a story about reality which can be made to converge. Of course this is done not only through the introduction of a certain degree of ambiguity and cloud to cover the terrain which cannot be easily traversed intellectually, but also by a kind of subjectivism and psychologism which characterize much of the contemporary scene and especially what is called New Age spirituality. Moreover, to bring about convergence, it is usually the religious truths which are sacrificed because they are accused of being "dogmatic" and what is substituted for them is usually drawn from evolutionism itself with some modifying factors to placate those who are still searching for a reality which is not simply material and physical. That such a thinking has entered even into writings that are taken seriously in certain religions, such as the works of Teilhard de Chardin in Catholic circles, only points out how far away the current understanding of spirituality has moved from that of the worlds which produced the Hōnens, Rāmānujas, St. Teresas and Rūmīs as well as the Shankaras, Nagārjunas, Eckharts and Ibn 'Arabīs who, each in his or her own way and according to different modes and perspectives, have dominated the spiritual and intellectual lives of different human collectivities over the centuries.

* * *

Seeing how powerful science, or at least its image, is in modern society and also how persistent is man's need for spirituality, we must now ask what can be done to bring about a serious convergence and accord between science and spirituality, one which would not be apparent and only contribute further to the confusion and chaos that characterize so much of contemporary life. Needless to say there cannot be a convergence between the view which believes that we have descended from above and that which claims that we have ascended from below. But if one puts pseudo-science, or rather philosophical hypotheses parading as science aside on the one hand and pseudo-spirituality, now so rampant in the West, on the other, then there are certainly significant steps that can be taken in bringing about if not a convergence, at least an understanding between the principles of spirituality and the *dicta* of science as they exist today and might exist tomorrow, while being always mindful of the continuously changing nature of the latter at least in details if not always in *Weltanschauung*.

Let us begin by recalling the fact that today even the world view or paradigm of modern science is beginning to change for the first time since the 16th and 17th centuries. There are scientists, especially physicists, who are turning to a world view in which the reality of what is of concern to spirituality is not reduced to subjectivism or a secondary, derivative set of phenomena. It is as yet too early to foretell what will happen in this domain. At the present stage there are those who, groping for a new philosophy of nature, remain satisfied with superficial comparisons between the dance of Siva and that of electrons or electro-magnetic polarity and the Yin-Yang principles of Far Eastern cosmology. This may, however, be but the first halting step or series of steps in the direction of the discovery, or rather rediscovery of Reality in its vast amplitude and numerous dimensions beyond the truncated version of it which is the subject of modern physics and which is then taken to be reality as such by the scientific mind.

Since it is not possible to discover higher levels of reality simply by means of even further analysis of matter and energy in a quantitative sense, such a discovery, if it ever comes, must of necessity draw from the metaphysical teachings of various traditions and be the result of the navigation through higher levels of reality by those who have been able to make such a journey, thanks to intellection and authentic spiritual techniques. If the shift of paradigm, so often discussed in the current philosophy of science, is to be anything more than the substitution of one limited view of reality for another, then recourse must

be had to spiritual traditions especially those of the East where a great deal of such teachings have been better preserved than in the modern West. If the substitution represents simply a "horizontal" shift, then accord between the new paradigm of science and spirituality will be as problematic as what one observes today. But there is some hope that a positive transformation of paradigm will come about. There are in fact a number of scientists, particularly physicists, who speak in such terms and who express serious theological and spiritual concerns, more than many theologians, who in fear of the onslaught of modern science, continue to surrender theology to the discoveries of the microscope and the telescope to an even greater degree.

In this process of the formation of a new paradigm, spirituality itself carries a heavy burden. What is called spirituality in various religions must be clearly defined, its roots in revelation, divine descent or corresponding realities in other religions elucidated and its wedding to authentic metaphysics or *sophia* based upon the twin sources of intellection and revelation/illumination made manifest. It is for those knowledgeable in such metaphysics and molded by authentic spirituality to formulate a contemporary metaphysics of nature and cosmology in the traditionally honored sense of this term which could provide the intellectual background for the new paradigm being sought by modern science. Spirituality abdicates from its function and role when it simply repeats the current findings of modern science, which will not be current tomorrow, and then distorts its own millennial teachings to demonstrate that they are in accord with present-day scientific theories or findings. Spirituality is based on the primacy of the spirit, on the supreme reality of the One, the Tao, the Godhead, *Ātman*, *Allāh* and not on a reality discovered through the external senses alone. Spirituality envisages man as at once Spirit, soul and body, and not only the mind and body of Cartesian dualism, and the cosmos also as a reality possessing not only a "body" which we can observe and study but also other dimensions corresponding to the psyche and Spirit. The more the basic metaphysical and epistemological differences between authentic spirituality and the current understanding of science are brought out, the more is there the possibility of the forging of a paradigm for science which could live at peace with the spiritual and not endanger the very existence of man on earth through its even greater exertion of power over both the human psyche and the domain of nature. If representatives of authentic spirituality do not become aware of this grave responsibility, they will simply leave the field open to pseudo-spirituality and caricatures of

authentic teachings to which many a well-meaning scientist, himself not trained in such matters, will turn for inspiration or guidance. The consequences cannot but be more catastrophic than an out and out rejection of all the claims of spirituality by this or that materialistic or agnostic scientist.

One might say that the most immediate task at hand is the creation of a sacred science of the cosmos which would not necessarily negate what modern science has discovered but provide another type of knowledge of the cosmos rooted in its sacred reality. Such a science, which had existed in various traditional civilizations but is rarely spoken of by current representatives of spirituality, would be the meeting ground between spirituality and science. It would provide a sacred view of nature, now being so mercilessly desecrated and one might say even murdered in the act which is now being called ecocide. It would also provide a knowledge of the cosmos which could discern between the aspects of modern science that correspond to some aspect of physical reality and those that are merely conjecture parading as science. It could also provide a domain of discourse between spirituality and science without destroying or mutilating the corresponding realities involved. Of course such an endeavor would require humility not only on behalf of certain individual men and women practicing science, for there are to be sure many humble scientists, but on behalf of science as a discipline. There must come the admission on behalf of the guardians and propagators of science in general, that modern science is a possible science and not *the* only legitimate science of nature. As long as such a totalitarian and monopolistic view of science exists, all talk of the harmony of spirituality and science remains mere talk unless spirituality is diluted or transformed into something which has as little to do with the Spirit as do the discoveries in a physics laboratory. Once such a limitation is admitted, however, there is certainly the possibility of an *approchement* and even of the opening of the door to the metaphysical and symbolic significance of major modern scientific discoveries, a significance which lies beyond the realm and boundaries defined by science for itself and therefore meaningless "scientifically" speaking in the same way that the term sacred in "sacred science" is simply a meaningless word in the context of the way in which modern science defines and understands concepts and terms.

Let us hope that at this dangerous juncture of human history, when man's ever greater quantitative knowledge of nature, based on a definition of knowledge which excludes the numinous and the sacred, is threatening all human life and in fact the whole of the natural ambi-

ance, a deeper understanding will be attained of the infinitely profound and rich sources of authentic spirituality and the real nature and limitations of modern science. The *dharma* of those who know cannot but be to discern, to overcome the supreme sin of false attribution, to preserve a sense of proportion and to remain faithful to the hierarchy of existence and the true relation between the spiritual and the physical based upon these realities. Only in the quest, preservation and propagation of authentic spirituality and an honest and critical understanding of the premises, assumptions, findings and gropings of modern science can one hope to avert the tidal wave that threatens what remains of traditional civilizations, authentic religions and spiritual teachings and that direct manifestation of Divine Wisdom and Power that is virgin nature. Also, this pursuit provides the opportunity to exercise to the highest degree the virtue of compassion of which the Buddhist Bodhisattva is such a compelling embodiment and image. The task is daunting but the end cannot but be witness to the victory of the Truth.[2]

Spirituality and Science
by Seyyed Hossein Nasr

Features in

The Essential Sophia
© 2006 World Wisdom, Inc.
edited by Seyyed Hossein Nasr & Katherine O'Brien
All Rights Reserved. For Personal Usage Only.
www.worldwisdom.com

[2] We have discussed more extensively the issues brought forth in this essay in *Knowledge and the Sacred* (Albany, NY: State University of New York Press, 1991); *The Need for a Sacred Science* (Albany, NY: State University of New York Press, 1993); and *Religion and the Order of Nature* (New York and Oxford: Oxford University Press, 1996).